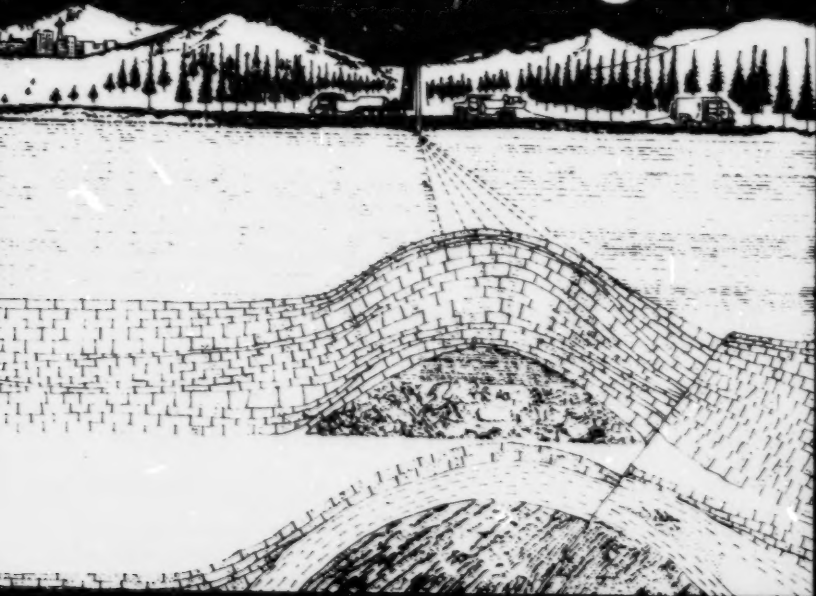


Seismic Operations & Farmers' Rights



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SEISMIC OPERATIONS AND FARMERS' RIGHTS

Farmers have specific rights with regards to seismic operations. The Office of the Farmers' Advocate is asked many questions about seismic operations and a farmer's rights, and has prepared this publication to answer those questions.

Basically, there are two steps to mineral operations: exploration and development. The first phase features geophysical operations and includes the following:

- (1) Seismic operations
- (2) Gravimetric operations
- (3) Magnetic operations
- (4) Electrical operations
- (5) Geo-chemical operations
- (6) Test drilling
- (7) Any other operations employed to determine geological or other conditions underlying the surface of the land, but does not include any investigation conducted in or by aircraft.

The main reason for all of these operations is to determine whether or not there is a suitable underground formation which may contain petroleum or natural gas that would warrant future development.

EXPLORATION STAGE

The most common method of exploration is the seismic operation. A surveyed line is cleared across the land marked for study. Each line has "shot points" at set intervals where an energy source, either dynamite in drill holes or surface methods such as vibrators, transmits energy to the sub-surface. The resulting reactions are recorded electronically. Both of these energy sources

are authorized by the Exploration Regulation. Shot holes, on the average, are drilled to a depth of approximately 23 metres at which point dynamite is inserted and detonated. Vibrators, mounted on large trucks, are driven onto the land and vibrations are sent down. These vibrations are recorded and interpreted in the same fashion as shot holes.

DEVELOPMENT STAGE (UNRELATED TO SEISMIC)

The development stage relates to drilling operations for the production or attempted production of petroleum and natural gas, and should not be confused with seismic work. No operator, except an Alberta land surveyor, may enter upon any land without first obtaining the consent of the owner/occupant. Failing this, the operator has the right to apply for right-of-entry order pursuant to the Surface Rights Act, but again not for seismic work. The Surface Rights Act has established regulations setting out the rules to be followed by companies when trying to obtain the consent of the occupant before surface leases for wellsites, battery sites, and roadways, as well as right-of-way for pipelines or hydro-lines are issued.

SEISMIC TESTS: TITLED AND LEASED LAND

The landowner's specific rights are protected under the Exploration Regulations. **Section 3(1) (a)** states no person shall conduct exploration on land owned by a person other than the Crown, except with the consent of the person having lawful possession of the land or that person's agent.

Section 3(2)

Notwithstanding Subsection (1) (a), where

- (a) the exploration to be conducted on any land other than Crown land entails the cutting of trees or the commission of waste on the land, and
- (b) the person in lawful possession does not have the right to cut trees or commit waste, as the case may be, on that land. No person shall conduct the exploration on that land except with the consent of the owner who has that right or his agent.

Section 3(3)

Subsections (1) and (2) shall not be construed as removing the necessity to obtain a consent to conduct exploration on any land from any person not referred to in those subsections, if that person's consent is required by law.

What this means is that an occupant who may be on a 1/3 - 2/3 crop share or on cash rent may not give permission to the seismic company to cut trees or commit waste (waste is the abuse or destructive use of property by one in rightful possession, such as a renter) as even the renter cannot do this, since this agreement is to farm the land only, not remove trees or allow their removal.

It further goes on to indicate that on occupied public lands, except with the consent of the person who has a right of possession under disposition made by the Crown or his agent, no company may acquire entry for seismic work.

Therefore, if lands are obtained under a grazing lease or any other type of lease, the Public Lands Division of Alberta Energy and Natural Resources grants approval for an exploration program on leased lands subject to industry obtaining consent from the lessee prior to conducting their program on leased lands.

Furthermore, the department is not party to negotiations between the seismic operators and the lessee concerning the amount to be paid to the lessee by the company. The lessee may negotiate freely with the company concerning the return for his consent. If he refuses to allow a seismic operation to enter upon his land, the operator has no appeal.

WHO IS TESTING

Should a farmer wish to find out who is conducting seismic operations in his locality, an up-to-date record is kept by the exploration review branch of Alberta Energy and Natural Resources. Before commencing field operations, all persons granted a licence must file a preliminary plan conveying a proposed program with the director, after which they will receive a letter of approval outlining the conditions under which the program must be conducted. Within 60 days after a program is completed, final plans indicating the completed program must be filed with the director. Where a permittee (contractor who does actual testing) proposes to change the location of the field headquarters of a crew, the permittee shall inform the director of exploration in advance of the change. Therefore, once the seismic crew has left your location, its new location can be obtained by contacting the director of the exploration review branch in Edmonton at 427-3932.

LEASED ROADWAYS (LEASED ROADS AND ROAD ALLOWANCES)

A permittee or person operating exploration equipment under the authority of his permit who intends to operate on a leased roadway, shall first attempt to obtain the right to enter by negotiating in good faith with the tenant.

If a right to enter cannot be reasonably obtained in accordance with the above, (whether it be over compensation or other points related to the entry) the permittee or person operating exploration equipment under the authority of

the permittee's permit may, by giving 48 hours' notice in writing to the tenant, enter on the leased roadway for the purpose of operating exploration equipment. Generally speaking, the notice will be served either by personal delivery or by double registered mail. The tenant must be in actual receipt of the notice unless a court order has been obtained for substitutional service or to dispense with service. If the permittee or seismic operation has failed to negotiate in good faith or failed to serve the required notice, he cannot rely on Section 47 of the Exploration Regulation to legally enter the leased roadway without the consent of the tenant.

This notice shall:

- indicate the point or points at which the person operating the exploration equipment will enter on the leased roadway or closed roadway.

- indicate the anticipated date of entry on, and the expected date of departure from, the leased roadway or closed roadway by the person operating the exploration equipment, and

- contain an undertaking by the holder of the permit under the authority of which exploration equipment will be operated on the leased roadway or closed roadway that he will be liable for any damage resulting from the operation of that equipment on the roadway.

Once the seismic operator has entered the leased road allowance, whether he had given notice or received permission, he shall maintain any fence broken or altered in order to gain access to the road allowance in such a manner as to prevent the straying of any livestock through it, take all necessary measures to prevent any damage to the lessee's livestock, and pay to the lessee of the road allowance any damages suffered by him that arose out of exploration operations conducted thereon.

SEISMIC OPERATIONS AND WATER WELLS

Countless inquiries are made to the Farmer's Advocate's Office with regard to the effect of seismic operations on water wells. A hole should be drilled at a sufficient distance from a water well to prevent the possibility of the well or water being affected or damaged. Notwithstanding this, no hole shall be drilled within 180 m of a water well. Where a charge is exploded in the vicinity of a water well, care should be taken to avoid damage to the water well. It should be noted that 180 m is the closest. Even if the shot hole is over 180 m, responsibility can still be affixed.

It is apparent the relevant sections of the Exploration Regulation are fairly general and are left wide open to individual interpretation. If damage to a water well is of prime concern to a farmer, he should execute his right under the Regulation and refuse entry, unless adequate guarantees are given with regard to the productivity of his water well.

DEFINITION OF A WATER WELL

A water well is defined under the Ground Water Control Act as an orifice (opening or hole) in the ground completed, being drilled, or being used:

- (i) for the production of ground water for any purposes referred to in the Water Resources Act, or
- (ii) for the purpose of obtaining data on ground water, or
- (iii) for recharging with water an underground formation from which ground water can be recovered.

The above definition is comprehensive enough to include almost any water source found on a farm, including most dugouts if ground water is used.

DAMAGE TO WATER WELLS

There is a possibility that geophysical operations may damage or destroy a water well. Government regulations outline minimum distances that geophysical energy sources must be from water wells (see page 11 for minimum distances). If concerned about the possibility of well failure (or water quality deterioration) when geophysical operations are proposed over your land, the landowner and permit person can:

- (1) come to an agreement on well production (verbal description of well capability);
- (2) perform static level test (measure from top of casing at ground level down to the height of the water), or
- (3) negotiate a more in-depth well study **prior** to the signing of any permit forms.

Should a landowner feel that a geophysical operation has damaged his well, the following courses of action are recommended:

- (1) attempt to contact the geophysical company doing the work (if direct contact cannot be made, the responsible local government may aid with the crew location);
- (2) contact the exploration branch of Alberta Energy and Natural Resources (phone 427-3932). Upon a complainant's request, the department will conduct a thorough and impartial investigation and attempt to determine the cause of the existing water well problem. If, in their opinion, the problem may be attributed to geophysical activity, the conclusions of the investigation will be presented to the company to negotiate a settlement. The recommendations of the exploration branch are not binding on either party;
- (3) contact the Farmers' Advocate (phone 427-2433). Should these avenues not resolve the matter to your satisfaction, aid may be sought

through the **Water Well Recovery Program**. The following are prerequisites before aid can be sought under the program:

- (a) It must have been either geophysical and/or the drilling of an oil/gas well in your area which you feel caused the problems.
- (b) The exploration branch of Alberta Energy and Natural Resources — 427-3932 — must be contacted if it is in regard to geophysical, or Alberta Environment, Earth Sciences Division, 14th Floor Standard Life Centre, 10405 Jasper Avenue, Edmonton T5J 3N4, phone 427-6188, if you feel it is a result of oil/gas drilling.
- (c) The well must be replaced, which means, you must have incurred the costs as a normal function of your farming operation as this well would have to be replaced (you must show the need) regardless of the existence of this program.

Then if you are successful under the program, your costs, all or a percentage, may be forthcoming. If you are unsuccessful, then it would appear your water loss is not related, as far as the program is concerned, and you would have to either assume all the costs of the replacement (which should have been done by this time) or take whatever legal action you may feel is necessary towards the geophysical company. For further details on this program as well as application forms, contact your local district agriculturist.

PROPERTY DAMAGE

It should be noted that if in the course of seismic drilling, water is released, a hole may be completed as a water well if arrangements have been made with the owner or the person having control of the surface of the land on which the hole is located, as long as that flow of water is adequately controlled in accordance with the Water Resources Act and will not interfere with the

rights of other persons, and that it is not located within the rights-of-way of a highway or public road.

If as a result of operations any damage occurs, whether by the caving in of any shot hole or test hole, by interference with drainage, by the release of water, or otherwise, the permittee shall take immediate steps to remedy the damage and prevent any recurrence thereof. Therefore, he must prevent further damage and is responsible for present and future damage. During the course of operations, if a permittee causes damage to any land or any bridge, culvert, fence, gate or other property, he shall immediately take action to prevent further damage or hazard, and repair any damages as soon as it is possible to do so.

After the geophysical operations have taken place on your property, the geophysical contractor (i.e. permit person) and yourself will attempt to come to an agreement over damages resulting from their activities. If you cannot negotiate a settlement with the geophysical company, contact the exploration branch of Alberta Energy and Natural Resources (phone 427-3932) who will conduct an impartial investigation and may or may not recommend a settlement. The recommendations of the exploration branch are not binding on either party. The Farmers' Advocate (phone 427-2433) may also be contacted concerning your damage claim. Should you anticipate problems in settling your damage claims after the geophysical operation has taken place, it is your **right** to include an arbitration clause in the Geophysical Entry Permit (under additional remarks on the permit form) at the **time of signing**. Should you have any questions on this procedure, contact the Farmers' Advocate Office.

MUNICIPAL ROAD ALLOWANCES

Another area in which disputes arise is in regard to seismic operations on municipal or third-party road allowances. Even though a company conducting

POOR

QUALITY

ORIGINAL

seismic operations may not be on a farmer's property, its liability as it pertains to damages is not removed, if these damages are a result of its operations. It is the responsibility of the seismic operator to see that all distances are obeyed (see Location of Shot Holes). He must ensure that there are no water wells or buildings within the specified area; if so, he must not drill. Should the company drill, it is as responsible for all damages as if it were on a farmer's property once the damages have been proven.

LOCATION OF SHOT HOLES

The following chart relates to the location of shot holes and test holes. At this time clarification should be made with regard to the difference between "shot holes" and "test holes".

A "shot hole" is a hole drilled or being drilled or a trench made or being made for the purpose of detonating an explosive charge for the primary purpose of obtaining geophysical information.

A "test hole" is a hole drilled or being drilled to a depth of 150 m or less for the primary purpose of obtaining geophysical information and in which no explosive charge will be detonated.

Required Distances for Various Seismic Operations (currently under review)

	Shot Hole	Test Hole	Vibrator	Linear Explosives
	-- metres --			
Building or structure with a concrete base	180	100	50	180
Residence or barn	180	100	50	180
Cemetery	180	100	50	180
Driveway or gateway	15	15	15	15
Buried telephone or telecommunication line	1	1	1	1
Buried waterpipeline	12	12	6	12
Oil or gas pipeline (measured from outer boundary of right-of-way)	180	12	6	180
Survey Monument	1	1	1	1
Water well	180	180	50	180
Oil and gas wells	180	50	50	180

Note: In this schedule, "Oil and gas pipeline" means a pipeline for the transmission of oil or gas and having a minimum operating pressure of 100 pounds per square inch. (684 kilopascals).

ABANDONMENT OF HOLES AND CLEANUP

The Regulation states that all holes shall be identified with the number of the permit by means of a metal tag. Before the drilling rig is removed from a hole, a permit tag shall be fixed facing and in close proximity to the hole but in no case more than 10 m from it.

In all cases, the location of each hole must be clearly marked.

Shot holes shall be abandoned immediately after detonation, and be properly plugged in accordance with the regulation. Test holes must be permanently abandoned within 10 days of the hole being drilled.

Another area of prime concern is that the ground surrounding the hole be restored as nearly as possible to its original condition. Therefore, the seismic operator must clean up debris and spread drill cuttings not required to fill the hole.

LIABILITY

If a farmer is not able to come to terms with the operator in regard to damages or other matters, he does have appeal to the exploration review branch. The branch will investigate on his behalf. The branch's phone number in Edmonton is 427-3932.

The information given above with regard to the Exploration Regulation are excerpts, and in some cases, condensations, and should be treated as such. If the specific wording of the Regulation is desired, copies are available through the Queen's Printer, at 11510 Kingsway Avenue, Edmonton, Alberta, T5G 2Y5, or through the Farmers' Advocate's Office.

COMPENSATION

The matter of compensation for entry is left entirely to the farmer and the operator. There is no legislation governing the amount or matter of payment. Each farmer must negotiate with the operator for a price that is acceptable. If such a price cannot be achieved, you may refuse to allow entry. Compensation paid is for entry only and DOES NOT cover damages done to standing crops, fences, livestock, rutting, etc. This area is dealt with separately. Failure to agree on damages does not mean the initial compensation is withheld. Compensation for damages should be paid when agreement can be reached.

PERMIT FORM

Experience has shown many disagreements have resulted from the use of questionable permit forms. These forms are either obviously in the company's interest with no consideration for the farmer's circumstances, or so vague that disagreement is almost guaranteed by their ambiguity. Therefore, the Farmers' Advocate's Office, in conjunction with the Alberta Surface Rights Federation, the Canadian Association of Geophysical Contractors, Canadian Petroleum Association and Alberta Energy and Natural Resources, has developed a standard permit form entitled "Permit to Conduct Geophysical Operations".

We strongly recommend that this document be used for all seismic operations. A farmer is under no obligation to use the operator's form. Just as he has the right to refuse entry over the matter of compensation, he also has the right to refuse entry if he is not satisfied with the company's permit form. In other words, he can insist on using the "Permit to Conduct Geophysical Operations". If the company refuses, he would be within his rights to refuse entry. This form affords farmers more protection than any agreement now in

use, and was created to protect the farmer's interest and satisfy the company's needs. If, however, you wish it changed to accommodate your operation, you are at liberty to do so, as is the company. "Negotiation" is the keyword.

DAMAGE RELEASE FORMS

Damage releases are not required under government regulations or law. However, many companies do require, as their own policy, signed release forms before damage payments are made. There are certain items to pay special attention to, namely:

- (1) payment should be for a specific damage named, even if it may be general in nature; e.g. rutting of field, crop loss, fence damage, etc.
- (2) payment should cover a specific time period; all damages up to and including a certain date.

The concern by industry is that they do not want to be held responsible for specific losses indefinitely. They want to pay and then be released from that specific damage. Landowners, on the other hand, want to be able to receive compensation for unforeseen damage if and when it occurs, when such damages can be attributed to the seismic operation. Most of the damages associated with seismic operations, as they pertain to land, usually occur immediately, or within a short period of time. If additional damages become evident after the release form has been signed, you would still be able to pursue them with the company, but it becomes more difficult as time passes. In order to deal with any subsequent damages, it is important that the release form signed covers only those damages which are evident at the date of signing. Read and understand what is presented to you. If unsure, seek assistance **before** signing.

ADDITIONAL POINTS OF INTEREST

The following are specific problems which have arisen in the past. In making you aware, you may avoid them.

Be sure that the width of right-of-way is indicated on the contract. Usually eight metres is adequate.

Make sure that the contract states that admittance to this right-of-way is through a designated point, otherwise the seismic operator may enter from any point, which could result in damage to crops, etc.

Be sure that the right-of-way is on a specific area, otherwise the right is given to test on the whole quarter section, depending on the case.

Draw a diagram on the permit form that clearly indicates the route the right-of-way is to take. Be specific if a diagonal route across the section is not desired. Indicate that it is to follow fence lines, to avoid shelter belts, etc.

Further, have stipulated on the contract, the date the operator plans to be on the property and the date by which he must be off. Otherwise, he may still be on the property when it comes time to seed or harvest.

Should the company decide to "set up camp" on the property, have it written into the contract that they are responsible for all additional damages such as diesel spills, etc. and that all garbage and toilet facilities will be cleaned up to the farmer's satisfaction.

If water wells are a problem, see that they are properly covered within the terms of the contract.

Remember, once a damage release form is signed for a specific loss, there can be no future claim for that item. However, this would not cover craters and flowing holes which may be a result of the shot holes (happening years later), for which the operator is still responsible, or for damages unforeseen at the time of signing the release.

Lastly, remember that a company may enter property only on the farmer's approval, therefore see that your interests are adequately protected. Monetary consideration is entirely up to the farmer — this Office will not become involved in this area. As long as the contract meets the above conditions, and satisfactory remuneration is offered, it is in farmers' interests and in the interest of Alberta to allow exploration on their property, not only for themselves but for future generations.

For further information or clarification, contact the Office of The Farmers' Advocate of Alberta, Agriculture Building, 7000 - 113 St., Edmonton, Alberta T6H 5T6, phone 427-2433.